

Title: METHOD AND APPARATUS FOR ENHANCING
THERMAL STABILITY, IMPROVING BIASING AND
REDUCING DAMAGE FROM ELECTROSTATIC DISCHARGE
IN SELF-PINNED ABUTTED JUNCTION HEADS
HAVING A SECOND HARD BIAS LAYER DISPOSED AWAY
FROM THE FREE LAYER
Applicants: Gill, et al.
Docket: HSJ920030016US3/HITG.055PA
Sheet 1 of 10

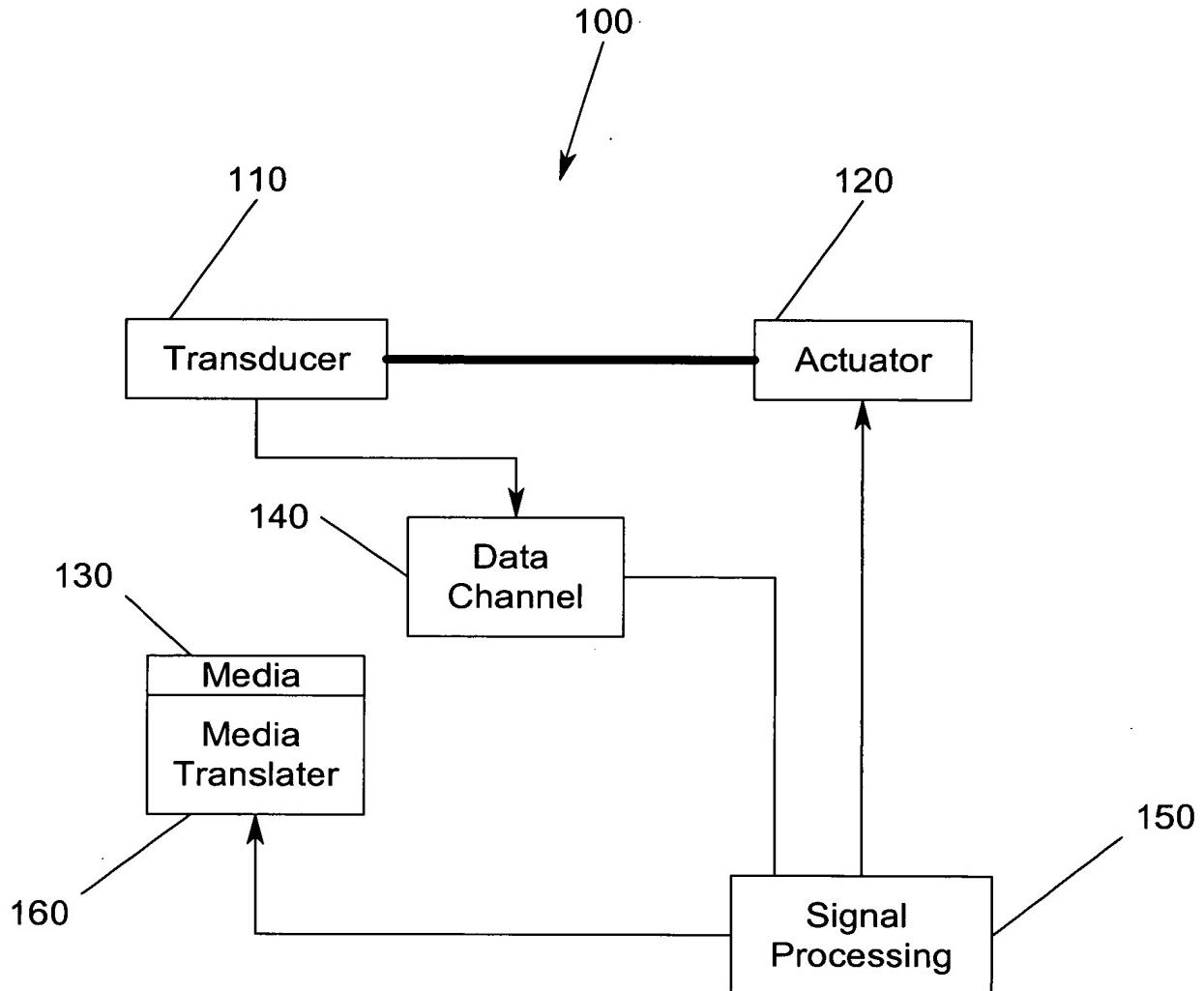


Fig. 1

Title: METHOD AND APPARATUS FOR ENHANCING
THERMAL STABILITY, IMPROVING BIASING AND
REDUCING DAMAGE FROM ELECTROSTATIC DISCHARGE
IN SELF-PINNED ABUTTED JUNCTION HEADS
HAVING A SECOND HARD BIAS LAYER DISPOSED AWAY
FROM THE FREE LAYER

Applicants: Gill, et al.

Docket: HSJ920030016US3/HITG.055PA

Sheet 2 of 10

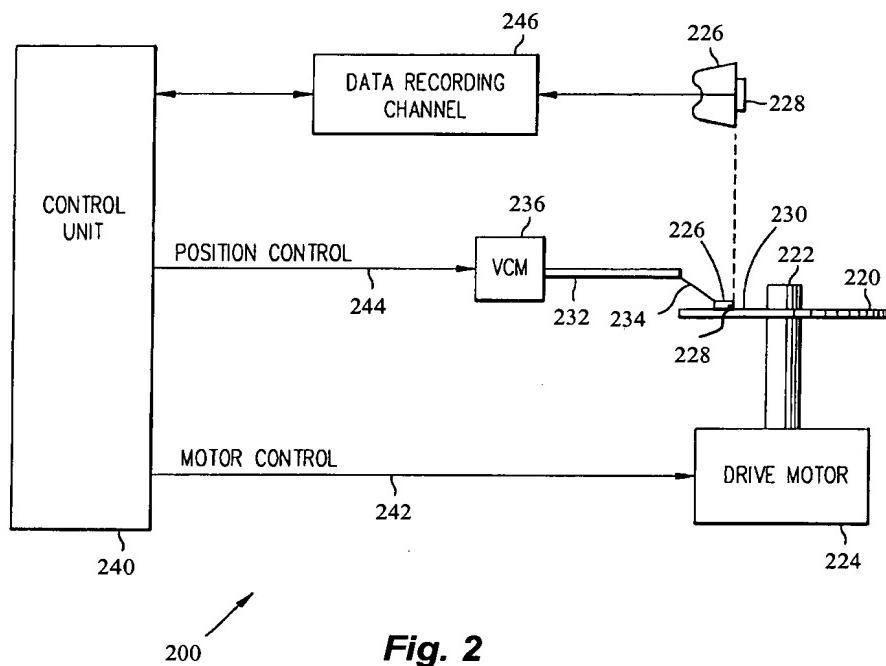


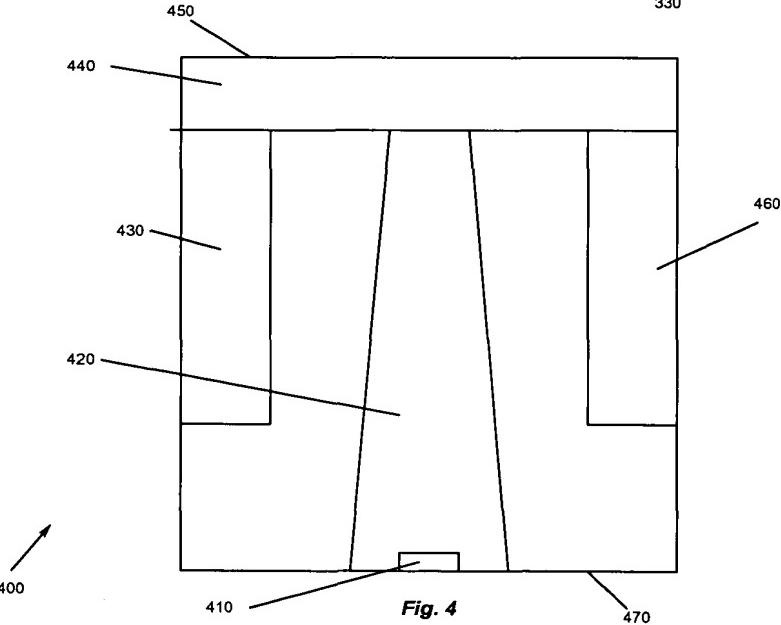
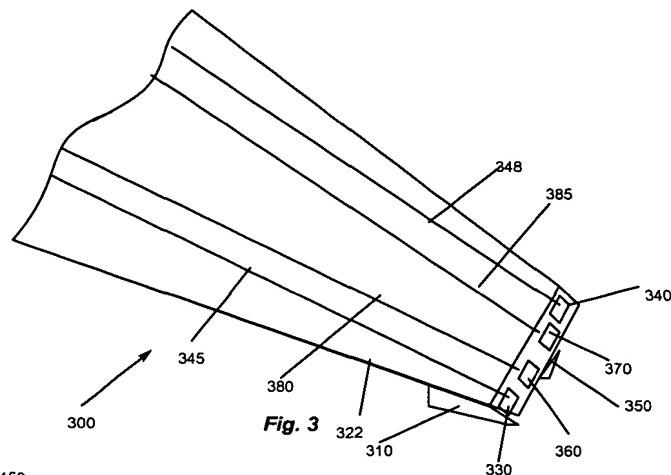
Fig. 2

Title: METHOD AND APPARATUS FOR ENHANCING
THERMAL STABILITY, IMPROVING BIASING AND
REDUCING DAMAGE FROM ELECTROSTATIC DISCHARGE
IN SELF-PINNED ABUTTED JUNCTION HEADS
HAVING A SECOND HARD BIAS LAYER DISPOSED AWAY
FROM THE FREE LAYER

Applicants: Gill, et al.

Docket: HSJ920030016US3/HITG.055PA

Sheet 3 of 10



Title: METHOD AND APPARATUS FOR ENHANCING
THERMAL STABILITY, IMPROVING BIASING AND
REDUCING DAMAGE FROM ELECTROSTATIC DISCHARGE
IN SELF-PINNED ABUTTED JUNCTION HEADS
HAVING A SECOND HARD BIAS LAYER DISPOSED AWAY
FROM THE FREE LAYER

Applicants: Gill, et al.

Docket: HSJ920030016US3/HITG.055PA

Sheet 4 of 10

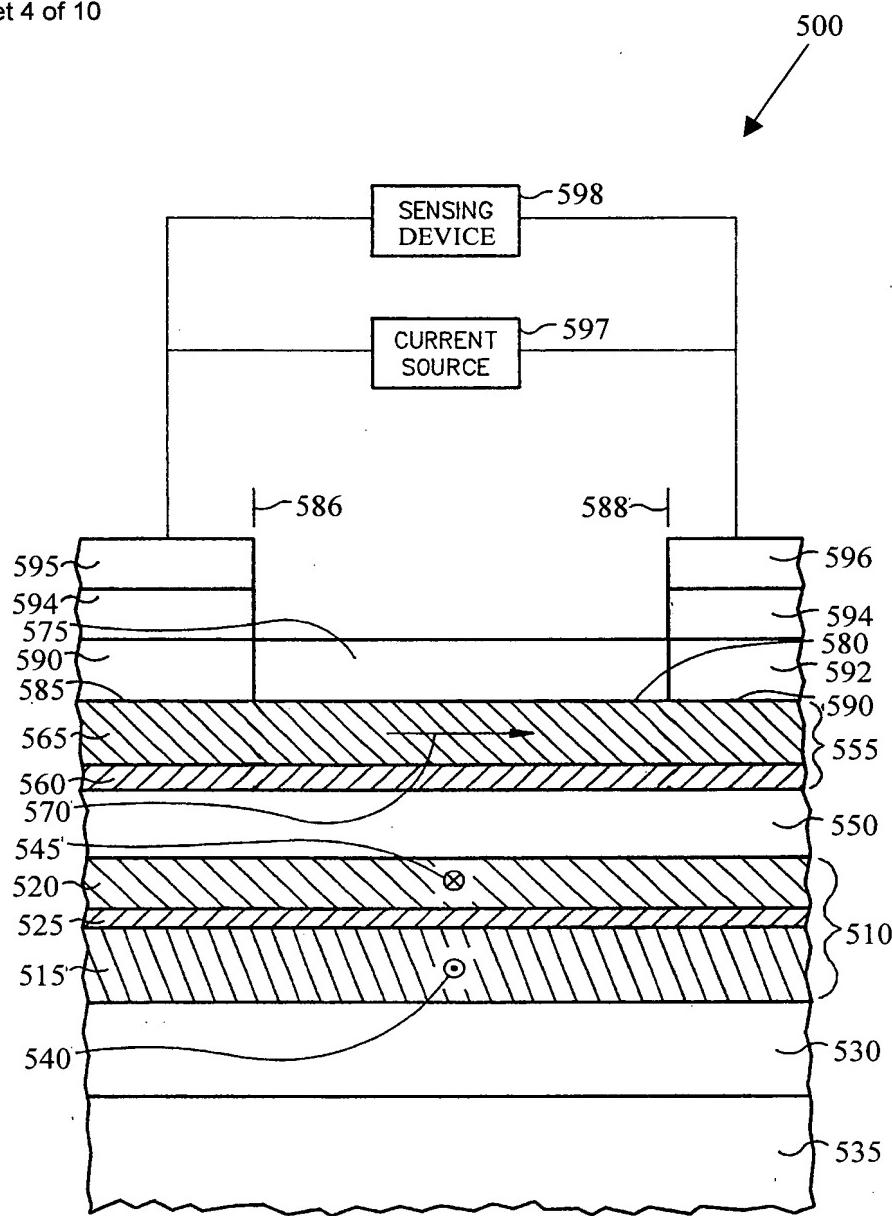


Fig. 5

Title: METHOD AND APPARATUS FOR ENHANCING
THERMAL STABILITY, IMPROVING BIASING AND
REDUCING DAMAGE FROM ELECTROSTATIC DISCHARGE
IN SELF-PINNED ABUTTED JUNCTION HEADS
HAVING A SECOND HARD BIAS LAYER DISPOSED AWAY
FROM THE FREE LAYER

Applicants: Gill, et al.

Docket: HSJ920030016US3/HITG.055PA

Sheet 5 of 10

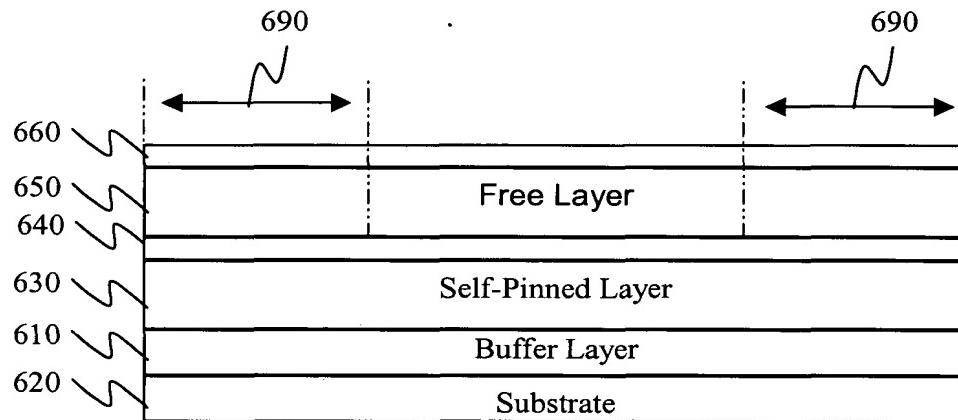


Fig. 6a

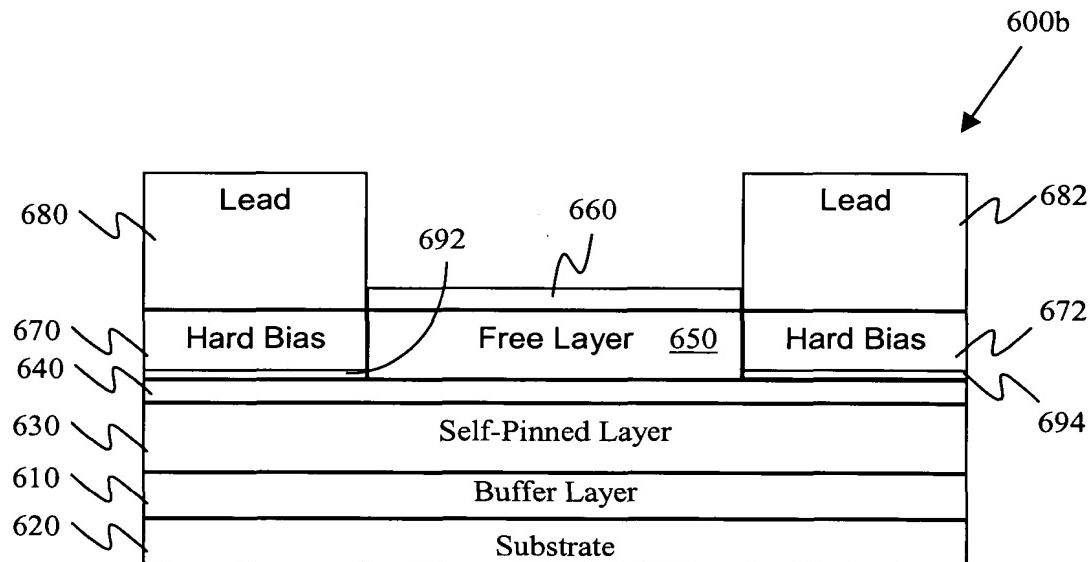


Fig. 6b

**Title: METHOD AND APPARATUS FOR ENHANCING
THERMAL STABILITY, IMPROVING BIASING AND
REDUCING DAMAGE FROM ELECTROSTATIC DISCHARGE
IN SELF-PINNED ABUTTED JUNCTION HEADS
HAVING A SECOND HARD BIAS LAYER DISPOSED AWAY
FROM THE FREE LAYER**

Applicants: Gill, et al.

Docket: HSJ920030016US3/HITG.055PA

Sheet 6 of 10

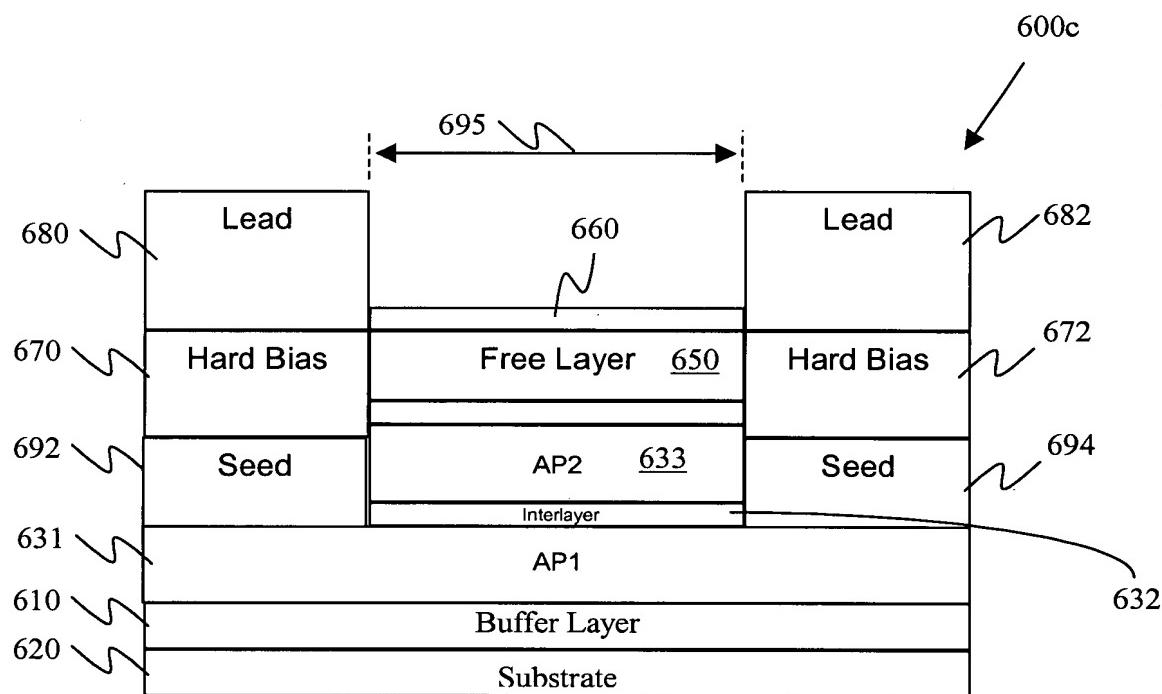


Fig. 6c

Title: METHOD AND APPARATUS FOR ENHANCING
THERMAL STABILITY, IMPROVING BIASING AND
REDUCING DAMAGE FROM ELECTROSTATIC DISCHARGE
IN SELF-PINNED ABUTTED JUNCTION HEADS
HAVING A SECOND HARD BIAS LAYER DISPOSED AWAY
FROM THE FREE LAYER

Applicants: Gill, et al.

Docket: HSJ920030016US3/HITG.055PA

Sheet 7 of 10

600d

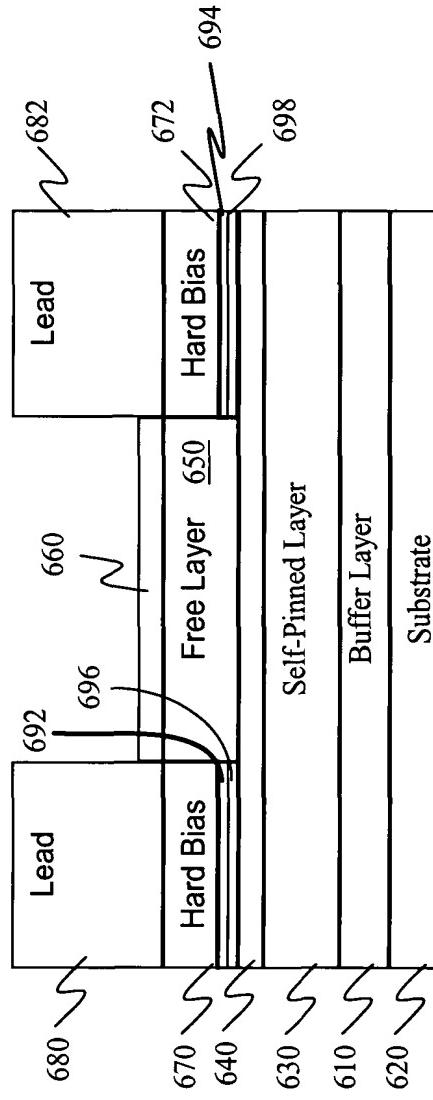


Fig. 6d

Title: METHOD AND APPARATUS FOR ENHANCING
 THERMAL STABILITY, IMPROVING BIASING AND
 REDUCING DAMAGE FROM ELECTROSTATIC DISCHARGE
 IN SELF-PINNED ABUTTED JUNCTION HEADS
 HAVING A SECOND HARD BIAS LAYER DISPOSED AWAY
 FROM THE FREE LAYER
 Applicants: Gill et al.
 Docket: HSJ920030016USS3/HITG.055PA
 Sheet 8 of 10

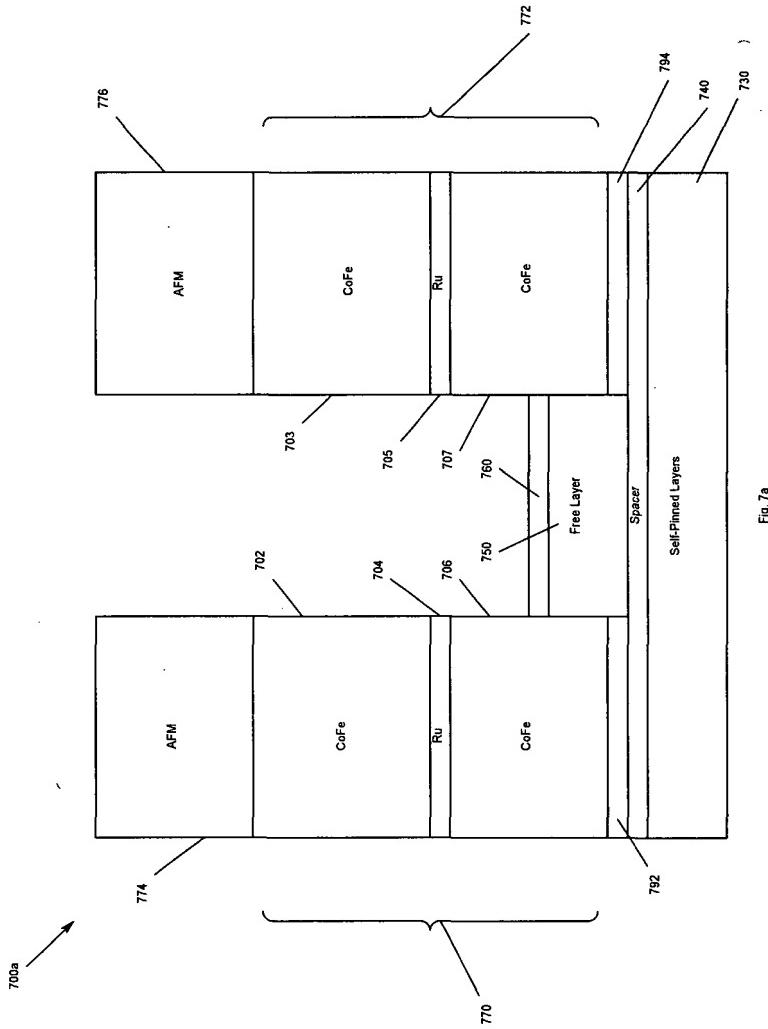


Fig. 7a

Title: METHOD AND APPARATUS FOR ENHANCING
 THERMAL STABILITY, IMPROVING BIASING AND
 REDUCING DAMAGE FROM ELECTROSTATIC DISCHARGE
 IN SELF-PINNED ABUTTED JUNCTION HEADS
 HAVING A SECOND HARD BIAS LAYER DISPOSED AWAY
 FROM THE FREE LAYER
 Applicants: Gill, et al.
 Docket: H91920030016US3/HITG.055PA

Sheet 9 of 10
 700b

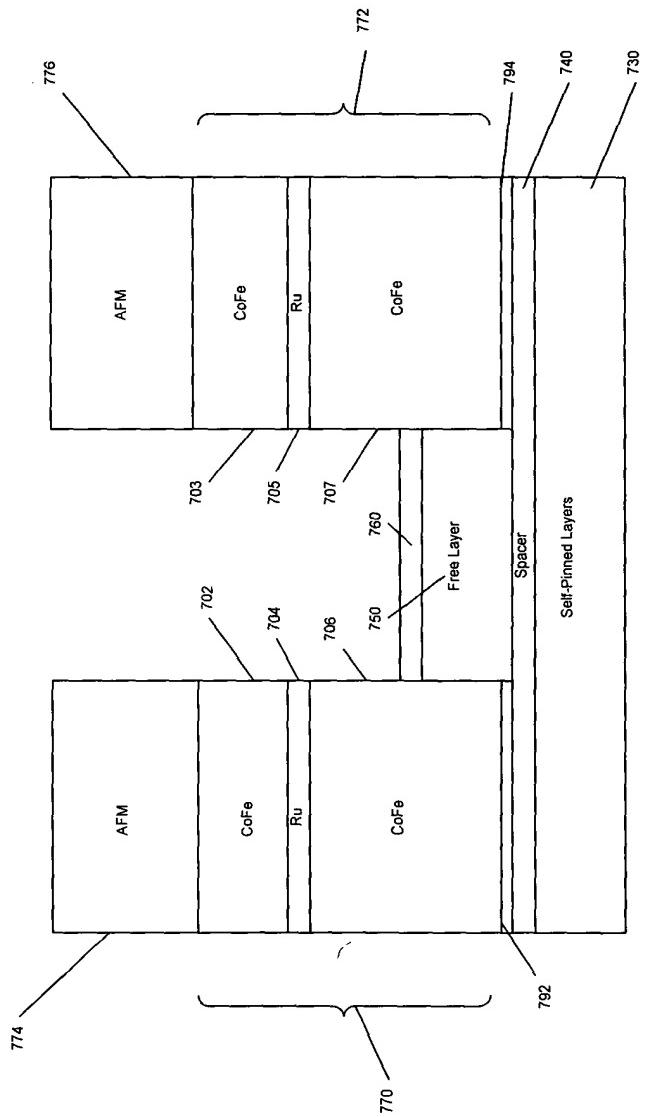


Fig. 7b

Title: METHOD AND APPARATUS FOR ENHANCING
THERMAL STABILITY, IMPROVING BIASING AND
REDUCING DAMAGE FROM ELECTROSTATIC DISCHARGE
IN SELF-PINNED ABUTTED JUNCTION HEADS
HAVING A SECOND HARD BIAS LAYER DISPOSED AWAY
FROM THE FREE LAYER

Applicants: Gill et al.

Docket: H920030016USS3/HITG.055PA

Sheet 10 of 10

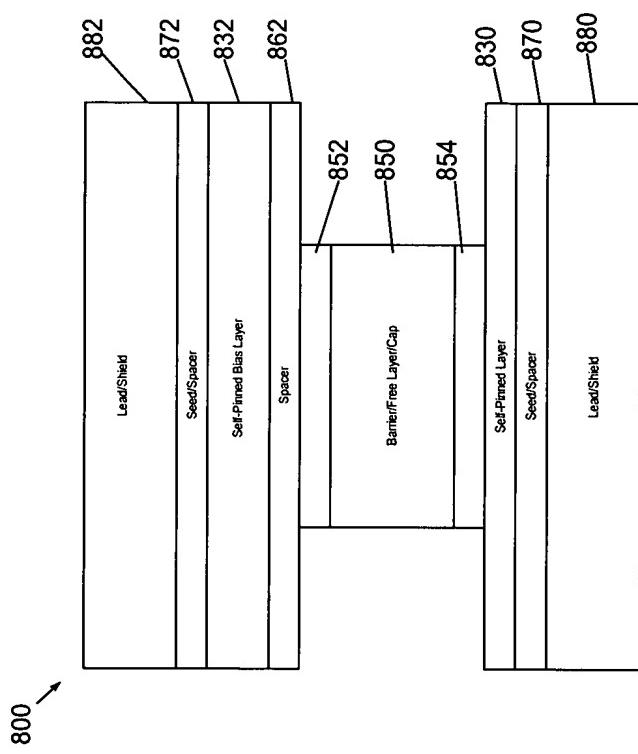


Fig. 8